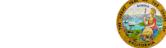
### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/Ala Rte: 80 PM: 13.2/13.9

File #: 69.28

## WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-022402

Address: 333 Burma Road **Date Inspected:** 26-Mar-2011

City: Oakland, CA 94607

**OSM Arrival Time:** 1900 **Project Name:** SAS Superstructure **OSM Departure Time:** 700 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name:** See below **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component: OBG** and Tower Components

### **Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance Inspector (QA Inspector) George Goulet was present during the times noted above for observations relative to the work being performed.

#### Bay 10

This QA Inspector randomly observed the following work in progress in the Bay 10:

SMAW repair welding of weld joints 37TR2-009 located on PCMK OBG traveler rail. Welder was identified as 040582. QC was identified as ABF CWI Liu Cheng (QC1). Assisting QC1 at this location and appearing to be monitoring the welding operation and recording data was ZPMC QC Zhu Peng (QCA1), who was not a CWI. Weld variables recorded by QCA1 appeared to comply with WPS-345-SMAW-2G(2F)-repair as displayed on ZPMC Weld Repair Report B-WR20475 as presented to this QA Inspector and verbally identified by QCA1. Attached to ZPMC Weld Repair Report B-WR20475 was ZPMC Report of Ultrasonic Examination #20390 as displayed on ZPMC Weld Repair Report B-WR20475. ZPMC Report of Ultrasonic Examination #20390 was two pages long and showed approximately 30 Ultrasonic Testing (UT) indications for weld joint 37TR2-009. See the three photos below listing the numerous indications.

#### Bay 11

This QA Inspector randomly observed the following work in progress in the Bay 11:

SMAW welding of weld joints ESD1-TL6-2C/D-6, 7 located on PCMK east tower, lift 6. Welder was identified as 044541. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding

### WELDING INSPECTION REPORT

(Continued Page 2 of 3)

operation and recording data was QCA1, who was not a CWI. Weld variables recorded by QCA1 appeared to comply with WPS-B-P-2313-TC-P4 as verbally identified by QCA1.

SMAW welding of weld joints WSD1-TL6-4C/D-21, 22 located on PCMK west tower, lift 6. Welder was identified as 040690. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding operation and recording data was QCA1, who was not a CWI. Weld variables recorded by QCA1 appeared to comply with WPS-B-P-2313-TC-P4 as verbally identified by QCA1.

SMAW welding of weld joint SSD1-TL6-1C/D-20 located on PCMK west tower, lift 6. Welder was identified as 052493. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding operation and recording data was QCA1, who was not a CWI. Weld variables recorded by QCA1 appeared to comply with WPS-B-P-2313-TC-P4 as verbally identified by QCA1.

SMAW welding of weld joints NSD1-TL6-3C/D-1, 2; SSD1-TL6-1C/D-21 located on PCMK west tower, lift 6. Welder was identified as 052930. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding operation and recording data was QCA1, who was not a CWI. Weld variables recorded by QCA1 appeared to comply with WPS-B-P-2313-TC-P4 as verbally identified by QCA1.

#### OBG Trial Assembly Area

This QA Inspector randomly observed the following work in progress in the OBG Trial Assembly Area:

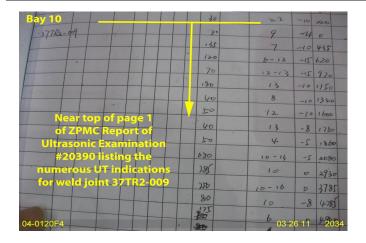
FCAW welding of weld joints SEG3007AH-036, 038, 094, 096, 104 located on PCMK OBG 13AE. Welder was identified as 050242. QC was identified as ABF CWI Wu Ke Wen (QC2). Assisting QC2 at this location and appearing to be monitoring the welding operation and recording data was ZPMC QC Zhan Hai Feng (QCA2), who was not a CWI. Weld variables recorded by QCA2 appeared to comply with WPS-B-T-2231-ESAB as verbally identified by QCA2.

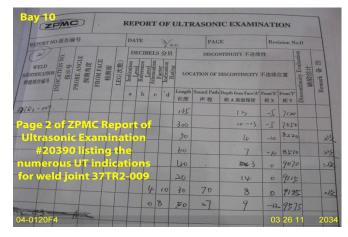
FCAW welding of weld joints SEG3007AH-106, 114, 116, 163, 165 located on PCMK OBG 13AE. Welder was identified as 055564. QC was identified as QC2. Assisting QC2 at this location and appearing to be monitoring the welding operation and recording data was QCA2, who was not a CWI. Weld variables recorded by QCA2 appeared to comply with WPS-B-T-2231-ESAB as verbally identified by QCA2.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

# WELDING INSPECTION REPORT

(Continued Page 3 of 3)





Bay 10	10	4	-5 1860
<b>54,</b> 10	680	10-13	-5 2080
	185	10	0 2930
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Bottom of page 1	80	10	-8 4781
of ZPMC Report of Ultrasonic Examination	\$77	6	0 4940
#20390 listing the	. 30	6	-105/50
numerous UT indications	50	8	-10 5280
for weld joint 37TR2-009	75.	11	0 5340
	35	5	-10 6055
	10	.4	-10 6135
	40	4	0 6265
	60	7	-10 6605
	1:00	. 4	-10 6715
	90	13	0 6770
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### **Summary of Conversations:**

As noted above.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang, 150-0042-2372, who represents the Office of Structural Materials for your project.

Inspected By:	Goulet,George	Quality Assurance Inspector
Reviewed By:	Riley,Ken	QA Reviewer